Reversible Teeth Discoloration in Children: A Linezolid Therapy Side Effect

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To the Editor:

A 9-year-old girl was admitted with surgical-site infection after triple pelvic osteotomy. Superficial wound exudate culture yielded methicillin-resistant *Staphylococcus aureus* (MRSA). Ultrasound revealed a soft tissue heterogeneous collection with subcutaneous fistulization. She completed 14 days of intravenous vancomycin and gentamicin with clinical and laboratory improvement. After discharge, a subcutaneous fistula with MRSA identification developed and persisted after debridement. Concomitant osteomyelitis was admitted and a 6-week course of oral linezolid (30 mg/kg/d every 8 hours) prescribed and osteotomy screws removed, with good clinical response. Linear brownish enamel discoloration on both her upper and lower anterior teeth (Figure 1) appeared four weeks after initiating linezolid therapy, and resolved with dental cleaning 4 weeks after discontinuation. Apart from reversible teeth discoloration, linezolid therapy was well tolerated.

Intravenous or oral linezolid is believed to be well tolerated and superior to vancomycin in treating MRSA-infected surgical-site infections.¹ However, mild-to-moderate adverse effects have been reported, such as gastrointestinal (children's most frequent adverse effect), myelosuppression, skin eruptions, and elevated liver enzymes.²⁻⁴ Reversible teeth and tongue discoloration have rarely been described,²⁻⁴ with only 5 cases published in children.²⁻⁴ Ma² described an 8-year-old child with teeth and tongue brownish discoloration after 1 week of oral linezolid. Matson and Miller³ reported an 11-year-old girl with tooth discoloration after a 28-day course of linezolid orally. Petropoulou et al⁴ reported 3 patients with this side effect during intravenous administration.

Studies are still needed to establish the discoloration mechanism. With oral administration, it was hypothesized that teeth and tongue direct exposure to the drug is responsible for this phenomenon. With intravenous administration, an affinity of linezolid to dental structures may be postulated.^{2,4} Other authors suggest that it might be related to a change in normal flora of the mouth.⁵

Figure 1. Linear brownish enamel discoloration on both upper and lower anterior teeth, by the base of the gums, and extending halfway up the teeth.

It would be essential to advertise patients and their parents of this potential side effect of linezolid therapy.

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